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U.S. PATENT DOCUMENTS

Exam. Init.		Publication/ Patent Number							Publication/ Issue Date	Patentee	Class	Subclass	Filing Date	
	2005/	0	1	9	2	4	0	8	09/01/2005	Lin et al.				
	2005/	0	1	9	7	4	6	2	09/08/2005	Wang et al.				
	2005/	0	2	1	5	6	9	3	09/29/2005	Wang et al.				
	2005/	0	2	2	8	0	7	4	10/13/2005	Wang et al.				
	2005/	0	2	8	2	9	5	6	12/22/2005	Bohm et al.				
	2006/	0	0	8	4	7	2	2	04/20/2006	Lin et al.				
	2006/	0	1	7	3	1	1	5	08/03/2006	Wang et al.				
	2006/	0	1	7	3	1	3	0	08/03/2006	Wang et al.				
	2006/	0	2	3	5	1	2	8	10/19/2006	Bohm et al.				
	2007/	0	1	4	2	5	5	0	06/21/2007	Wang et al.				
	2007/	0	1	4	2	5	5	9	06/21/2007	Wang et al.				
	2007/	0	1	4	9	6	4	9	06/28/2007	Wang et al.				
	2007/	0	1	6	1	7	5	4	07/12/2007	Bohm et al.				
	2007/	0	1	8	5	2	7	3	08/09/2007	Hall et al.				
	2007/	0	1	9	6	6	5	3	08/23/2007	Hall et al.				
		4	5	9	8	1	0	5	07/01/1986	Weber et al.				
		5	7	4	2	1	1	8	04/21/1998	Endo et al.				
		6	7	2	7	3	1	1	04/27/2004	Ajbani et al.				
		6	7	3	7	4	8	6	05/18/2004	Wang				
		7	2	0	5	3	7	0	04/17/2007	Wang et al.				

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam. Init.		Document Number							Publication Date	Country or Patent Office	Class	Subclass	Translation	
													Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Relevant pages, Place of Publication***)**

		Akashi, Mitsuru et al., "Synthesis and Polymerization of a Styryl Terminated Oligovinylpyrrolidone Macromonomer", Die Angewandte Makromolekulare Chemie, 132, pp. 81-89 (1985).
		Alexandridis, Paschalis et al., "Amphiphilic Block Copolymers: Self-Assembly and Applications", Elsevier Science B.V., pp. 1-435 (2000).
		Allgaier, Jurgen et al., "Synthesis and Micellar Properties of PS-PI Block Copolymers of Different Architecture", ACS Polym. Prepr. (Div Polym. Chem.), Vol. 37, No. 2, pp. 670-671 (1996).
		Antonietti, Markus et al., "Determination of the Micelle Architecture of Polystyrene/Poly(4-vinylpyridine) Block Copolymers in Dilute Solution", Macromolecules, 27, pp. 3276-3281 (1994).
		Antonietti, Markus et al., "Novel Amphiphilic Block Copolymers by Polymer Reactions and Their Use for Solubilization of Metal Salts and Metal Colloids", Macromolecules, 29, pp. 3800-3806 (1996).
		Batzilla, Thomas et al., "Formation of intra- and intermolecular crosslinks in the radical crosslinking of poly(4-vinylstyrene)", Makromol. Chem., Rapid Commun. 8, pp. 261-268 (1987).
		Bauer, B.J. et al., "Synthesis and Dilute-Solution Behavior of Model Star-Branched Polymers", Rubber Chemistry and Technology, Vol. 51, pp. 406-436 (1978).
		Berger, G. et al., "Mutual Termination of Anionic and Cationic 'Living' Polymers", Polymer Letters, Vol. 4, pp. 183-186 (1966).

	Bradley, John S., "The Chemistry of Transition Metal Colloids", Clusters and Colloids: From Theory to Applications, Chapter 6, Weinheim, VCH, pp. 459-544 (1994).
	Bronstein, Lyudmila M. et al., "Synthesis of Pd-, Pt-, and Rh-containing polymers derived from polystyrene-polybutadiene block copolymers; micellization of diblock copolymers due to complexation", <i>Macromol. Chem. Phys.</i> , 199, pp. 1357-1363 (1998).
	Calderara, Frederic et al., "Synthesis of chromophore-labelled polystyrene/poly(ethylene oxide) diblock copolymers", <i>Makromol. Chem.</i> , 194, pp. 1411-1420 (1993).
	Chen, Ming-Qing et al., "Graft Copolymers Having Hydrophobic Backbone and Hydrophilic Branches. XXIII. Particle Size Control of Poly(ethylene glycol)-Coated Polystyrene Nanoparticles Prepared by Macromonomer Method", <i>Journal of Polymer Science: Part A: Polymer Chemistry</i> , Vol. 37, pp. 2155-2166 (1999).
	Eisenberg, Adi, "Thermodynamics, Kinetics, and Mechanisms of the Formation of Multiple Block Copolymer Morphologies", <i>Polymer Preprints</i> , Vol. 41, No. 2, pp. 1515-1516 (2000).
	Erhardt, Rainer et al., <i>Macromolecules</i> , Vol. 34, No. 4, pp. 1069-1075 (2001).
	Eschwey, Helmut et al., "Preparation and Some Properties of Star-Shaped Polymers with more than Hundred Side Chains", <i>Die Makromolekulare Chemie</i> 173, pp. 235-239 (1973).
	Eschwey, Helmut et al., "Star polymers from styrene and divinylbenzene", <i>Polymer</i> , Vol. 16, pp. 180-184 (March 1975).
	Fendler, Janos H., "Nanoparticles and Nanostructured Films: Preparation, Characterization and Applications", Wiley-VCH, pp. 1-468 (1998).
	Garcia, Carlos B. et al., "Self-Assembly Approach toward Magnetic Silica-Type Nanoparticles of Different Shapes from Reverse Block Copolymer Mesophases", <i>J. Am. Chem. Soc.</i> , Vol. 125, pp. 13310-13311 (2003).
	Hamley, Ian W., "The Physics of Block Copolymers", Oxford Science Publication: Oxford, Chapters 3 and 4, pp. 131-265, (1998).
	Ishizu, Koji et al., "Synthesis of Star Polymer with Nucleus of Microgel", <i>Polymer Journal</i> , Vol. 12, No. 6, pp. 399-404 (1980).
	Ishizu, Koji, "Structural Ordering of Core Crosslinked Nanoparticles and Architecture of Polymeric Superstructures", <i>ACS Polym. Prepr. (Div Polym Chem)</i> Vol. 40, No. 1, pp. 456-457 (1999).
	Liu, Guojun et al., "Diblock Copolymer Nanofibers", <i>Macromolecules</i> , 29, pp. 5508-5510 (1996).
	Liu, T. et al., "Formation of Amphiphilic Block Copolymer Micelles in Nonaqueous Solution", <i>Amphiphilic Block Copolymers: Self-Assembly and Applications</i> , Elsevier Science B.V., pp. 115-149 (2000).
	Ma, Qinggao et al., "Entirely Hydrophilic Shell Cross-Linked Knedel-Like (SCK) Nanoparticles", <i>Polymer Preprints</i> , Vol. 41, No. 2, pp. 1571-1572 (2000).
	Mayer, A.B.R. et al., "Transition metal nanoparticles protected by amphiphilic block copolymers as tailored catalyst systems", <i>Colloid Polym. Sci.</i> , 275, pp. 333-340 (1997).
	Mi, Yongli et al., "Glass transition of nano-sized single chain globules", <i>Polymer</i> 43, Elsevier Science Ltd., pp. 6701-6705 (2002).
	Nace, Vaughn M., "Nonionic Surfactants: Polyoxyalkylene Block Copolymers", <i>Surfactant Science Series</i> , Vol. 60, pp. 1-266 (1996).
	Okay, Oguz et al., "Steric stabilization of reactive microgels from 1,4-divinylbenzene", <i>Makromol. Chem., Rapid Commun.</i> , Vol. 11, pp. 583-587 (1990).
	Okay, Oguz et al., "Anionic Dispersion Polymerization of 1,4-Divinylbenzene", <i>Macromolecules</i> , 23, pp. 2623-2628 (1990).
	Piirma, Irja, "Polymeric Surfactants", <i>Surfactant Science Series</i> , Vol. 42, pp. 1-289 (1992).
	Price, Colin, "Colloidal Properties of Block Copolymers", <i>Applied Science Publishers Ltd.</i> , Chapter 2, pp. 39-80 (1982).
	Rager, Timo et al., "Micelle formation of poly(acrylic acid)- block-poly(methyl methacrylate) block copolymers in mixtures of water with organic solvents", <i>Macromol. Chem. Phys.</i> , 200, No. 7, pp. 1672-1680 (1999).
	Rein, David H. et al., "Kinetics of arm-first star polymers formation in a non-polar solvent", <i>Macromol. Chem. Phys.</i> , Vol. 199, pp. 569-574 (1998).
	Rempp, Paul et al., "Grafting and Branching of Polymers", <i>Pure Appl. Chem.</i> , Vol. 30, pp. 229-238 (1972).
	Riess, Gerard et al., "Block Copolymers", <i>Encyclopedia of Polymer Science and Engineering</i> , Vol. 2, pp. 324-434 (1985).
	Saito, Reiko et al., "Synthesis of Microspheres with Microphase-Separated Shells", <i>Journal of Polymer Science: Part A: Polymer Chemistry</i> , Vol. 38, pp. 2091-2097 (2000).
	Serizawa, Takeshi et al., "Transmission Electron Microscopic Study of Cross-Sectional Morphologies of Core-Corona Polymeric Nanospheres", <i>Macromolecules</i> , 33, pp. 1759-1764 (2000).
	Stepanek, Miroslav et al., "Time-Dependent Behavior of Block Polyelectrolyte Micelles in Aqueous Media Studied by Potentiometric Titrations, QELS and Fluorometry", <i>Langmuir</i> , Vol. 16, No. 6, pp. 2502-2507 (2000).
	Thurmond II, K. Bruce et al., "Water-Soluble Knedel-like Structures: The Preparation of Shell-Cross-Linked Small Particles", <i>J. Am. Chem. Soc.</i> , Vol. 118, pp. 7239-7240 (1996).
	Thurmond II, K. Bruce et al., "The Study of Shell Cross-Linked Knedels (SCK), Formation and Application", <i>ACS Polym. Prepr. (Div Polym. Chem.)</i> , Vol. 38, No. 1, pp. 62-63 (1997).
	Tsitsilianis, Constantinos et al., <i>Makromol. Chem.</i> 191, pp. 2319-2328 (1990).
	Tuzar, Zdenek et al., "Micelles of Block and Graft Copolymers in Solutions", <i>Surface and Colloid Science</i> , Vol. 15, Chapter 1, pp. 1-83 (1993).
	Vamvakaki, M. et al., "Synthesis of novel block and statistical methacrylate-based ionomers containing acidic, basic or betaine residues", <i>Polymer</i> , Vol. 39, No. 11, pp. 2331-2337 (1998).

		van der Maarel, J.R.C. et al., "Salt-Induced Contraction of Polyelectrolyte Diblock Copolymer Micelles", <i>Langmuir</i> , Vol. 16, No. 19, pp. 7510-7519 (2000).
		Wang, Xiaorong et al., "Chain conformation in two-dimensional dense state", <i>Journal of Chemical Physics</i> , Vol. 121, No. 16, pp. 8158-8162 (October 22, 2004).
		Wang, Xiaorong et al., "Synthesis, Characterization, and Application of Novel Polymeric Nanoparticles", <i>Macromolecules</i> , 40, pp. 499-508 (2007).
		Webber, Stephen E. et al., "Solvents and Self-Organization of Polymers", <i>NATO ASI Series, Series E: Applied Sciences</i> , Vol. 327, pp. 1-509 (1996).
		Wooley, Karen L, "From Dendrimers to Knedel-like Structures", <i>Chem. Eur. J.</i> , 3, No. 9, pp. 1397-1399 (1997)
		Wooley, Karen L, "Shell Crosslinked Polymer Assemblies: Nanoscale Constructs Inspired from Biological Systems", <i>Journal of Polymer Science: Part A: Polymer Chemistry</i> , Vol. 38, pp. 1397-1407 (2000).
		Worsfold, D.J., "Anionic Copolymerization of Styrene with p-Divinylbenzene", <i>Macromolecules</i> , Vol. 3, No. 5, pp. 514-517 (September-October 1970).
		Zheng, Lei et al., "Polystyrene Nanoparticles with Anionically Polymerized Polybutadiene Brushes", <i>Macromolecules</i> , 37, pp. 9954-9962 (2004).
		Zilliox, Jean-Georges et al., "Preparation de Macromolecules a Structure en Etoile, par Copolymerisation Anionique", <i>J. Polymer Sci.: Part C</i> , No. 22, pp. 145-156 (1968).
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